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This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A method for compensating ~~for~~ signal changes of a plurality of single signals forming an optical wavelength-division multiplex signal caused by cross phase modulation in a fiber amplifier, said method comprising the steps of:

coupling out a part of the entire optical wavelength-division multiplex signal;

~~obtaining~~ generating a control signal from ~~an~~ the part of said optical wavelength-division multiplex signal, said control signal controlling a phase modulator; and

supplying said control signal with said wavelength-division multiplex signal, in said optical wavelength-division multiplex signal to said phase modulator and modulating the optical wavelength-division multiplex signal by said control signal such that signal changes of said ~~wavelength-division multiplex signal plurality of single signals~~ caused by cross phase modulation are at least largely compensated ~~for~~.

Claim 2 (original): The method as claimed in claim 1, further comprising the steps of:
tapping an optical measurement signal off of said optical wavelength-division multiplex signal;

converting said optical measurement signal by opto-electrical conversion into an electrical measurement signal; and

converting said electrical measurement signal into said control signal by an adjustable amplifier.

Claim 3 (currently amended): The method as claimed in claim 2, further comprising the step of delaying said optical wavelength-division multiplex signal supplied to said phase modulator with respect to said optical measurement signal.

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Claim 4 (original): The method as claimed in claim 1, further comprising the step of measuring signal changes at an output of said phase modulator and controlling said control signal.

Claim 5 (currently amended): An arrangement for compensating ~~for~~ signal changes of a plurality of single signals forming an optical wavelength-division multiplex signal caused in a wavelength-division multiplex signal by cross phase modulation ~~by~~ in a fiber amplifier, having a control circuit comprising:

a measurement coupler which couples out a part of said entire wavelength-division multiplex signal as an optical measurement signal;

an opto-electrical converter which converts said optical measurement signal into an electrical measurement signal;

C3 an electrical amplifier that has an input supplied by said electrical measurement signal and an output which is an amplified measurement signal as a control signal; and

a phase modulator having a signal input and a modulation input, said wavelength-division multiplex signal being supplied to said signal input, and said control signal being supplied to said modulation input, a gain being selected such that signal changes of said plurality of single signal by cross phase modulation are at least largely compensated when said phase modulator outputs a wavelength-division multiplex signal ~~which is at least largely compensated for~~.

Claim 6 (original): The arrangement as claimed in claim 5, wherein said electrical amplifier is adjustable.

Claim 7 (original): The arrangement as claimed in claim 5, wherein said wavelength-division multiplex signal is delayed between said measurement coupler and said phase modulator.

Claim 8 (original): The arrangement as claimed in claim 5, wherein at least one of said measurement coupler and said phase modulator is inserted between a number of sections of an amplifier fiber.

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Claim 9 (original): The arrangement as claimed in claim 5, wherein said arrangement is connected immediately before or after said fiber amplifier.
